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Social Assistance and the Challenges of Poverty and Inequality in Azerbaijan, a low-income country in transition

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Although low-income countries in transition are facing the challenges of poverty and inequality, evidence on the performance of safety nets in these countries is scarce. This article uses micro-file data from a nationally representative household budget survey to analyze the existing social assistance programs in Azerbaijan, a low income country in transition, from the perspectives of poverty and inequality reduction. The empirical evidence presented in this paper indicates that the poverty and inequality reduction effectiveness of social assistance programs is inadequate. First, the benefits are very modest and the poor receive only a small proportion of them. Second, some programs are not aimed at poverty reduction by design. Third, the heterogeneous nature of poverty and the significant scale of shadow economy during transition make the identification of the poor complicated. Finally, the existing patchwork of numerous programs with small-scale benefits is costly and administratively demanding. A consolidated and better designed social assistance program is needed to effectively tackle the challenges of poverty and inequality in Azerbaijan.

Keywords: *Income distribution, welfare, poverty, inequality, safety net, social assistance, transition, and Azerbaijan*

Starting with the same ground of the Soviet-style social assistance of the 1990s, countries of the former Soviet block have demonstrated divergent patterns in reforming their social welfare safety nets. However, most of the literature regarding social assistance reform focuses on the Baltic or Slavic countries, while the development of social assistance systems in the low-income transitional countries of Central Asia and Caucasus has been largely

ignored (Klugman, 1997; Manning, 2004; Manning & Tikhonova, 2004; Rimashevskaya, 2003; Whitefield, 2002). This study attempts to fill this gap in the literature by focusing on the assessment of social assistance in Azerbaijan, a low-income transitional country, located on the Caucasus between Russia and Iran. There are two major benefits of this study. First, the analysis in this study is based on high-quality micro data from a nationally representative household budget survey. Second, the analysis of social assistance is relevant for Azerbaijan given that the government of the country has recently reiterated a commitment to reform social assistance in the framework of the Poverty Reduction Program of Azerbaijan (GoA, 2004; 2005).

Background: Social Assistance and Transitional Shocks

Until 1991 Azerbaijan was a part of the USSR, and the development of social assistance in the country followed the unified Soviet model that had three major legs. The first leg was a broad net of cash benefits for several categories of households such as families with children, veterans, the disabled, elders, parentless children, and certain categories of workers such as miners and teachers. Thus, by the end of 1980s, families with children in the Soviet Union were eligible for up to 10 types of benefits which were effective tools in decreasing child poverty and promoting women's employment (Bradbury & Jantti, 1999; OECD, 1996). The second leg included: day care, sport, food and leisure services subsidized by the state-owned enterprises, as well as consumer goods, housing, transport, communication and utilities subsidized by the budget revenue of the state. It is estimated that the consumer and producer subsidies together accounted for about 10 percent of GNP by the end of 1980s (Rashid et al., 2000). The third leg was the centrally-planned economy with primarily state ownership of the means of production, which guaranteed full employment and made unemployment assistance unnecessary.

The first years of transition were marked by profound economic crisis in Azerbaijan, which negatively affected all three legs of social assistance. First, privatization of the economy made guaranteed full employment impossible. Employees of the former state-run enterprises were forced to move to the informal sector

of employment that exceeded 38 percent in Azerbaijan (Yoon et al., 2003). As a result, the share of shadow economy of the total GDP of the country grew to 60 percent (Schneider, 2002). Second, by the year 2003, the private sector share of GDP reached more than 70 percent (MED, 2003). The former state-run enterprises reemerged as privately-owned companies and ceased playing an active role in delivering social assistance benefits, considered to be inappropriate for profit-oriented businesses. Third, the government's capability to administer social protection was severely undermined by the profound decline in state revenues. Consequently, Azerbaijan lagged far behind the high and middle income countries of the former Soviet Union in public spending for social programs (Table 1).

Economic depression, multiplied by the dismantling of the Soviet-style social assistance, led to a sharp increase in poverty. The poverty rate, the share of the total population living below the poverty line, grew in Azerbaijan from 33 percent in 1989 to 50 percent in 2001 (Falkingham, 2004). In total, about 24 percent of the population of Azerbaijan or 1, 860,000 people live under the international extreme poverty line of 2.15 USD PPP/day (Falkingham, 2005). In addition, the determinants of poverty have changed. Determinants of poverty were fairly homogenous before the transition: the majority of the poor were pensioners, families with a large number of dependents or single mothers (Klugman, 1997; Manning & Tikhonova, 2004). Since the transition began, poverty has become more diffused, and demographic characteristics have ceased to be strong determinants of poverty.

Finally, the impoverishment was accompanied by a significant increase in inequality. The Soviet society was fairly equal in terms of income; before the independence of Azerbaijan, the Gini coefficient, a measure of inequality, was only 0.27 in the country (Falkingham, 2004). By the end of a transition decade, in 2000, the Gini coefficient nearly doubled to 0.50.

Objectives of the Study

Responding to the rising poverty and inequality during transition, the government of Azerbaijan has administered new social assistance programs. However, on the basis of the data sketched

Table 1
Comparison of social programs expenditures between Azerbaijan and other countries of the former Soviet Union in 2000

	<i>Azerbaijan</i>	<i>Average for western countries of the former Soviet Union</i>	<i>Average for the Baltic countries of the former Soviet Union</i>
Government spending for social programs (USD per capita)	34	57	390
Government spending for social programs (% of GDP)	5.3	7.8	12.1
Total GDP per capita PPP (in constant 1995 USD)	2,358	4,939	8,137

Notes: Western countries of the former Soviet Union include Russia, Ukraine and Belarus.

The Baltic countries of the former Soviet Union accepted in the European Union in 2004 are Estonia, Latvia and Lithuania.

Social programs include expenditures on transfers for population, in-kind social services and support to institutionalized population.

Sources: Authors' calculations based on World Bank (2003a, 2005)

in the previous section (e.g. high level of poverty and inequality), the actual impact of social assistance on poverty and inequality is expected to be minuscule. This intuitive observation allows us to articulate the two objectives of this study. First, this study attempts to quantify the performance of social assistance programs in Azerbaijan from the perspectives of poverty and inequality reduction. Second, it seeks to provide specific recommendations to improving the existing social assistance programs.

Data

Collecting data about income distribution in Azerbaijan has a long history, the Family Budget Survey (FBS), a nationwide survey of family income, was administered in Azerbaijan quarterly since 1922 (Dmitrichev, 1992). However, the FBS was extensively criticized for being unrepresentative of the total population and providing misleading information about income distribution (Flemming & Micklewright, 2000; Micklewright & Marnie, 2005; Shenfield, 1983). In 2003, the State Statistics Committee of Azerbaijan, the national statistical agency, introduced a new survey, the Azerbaijan Household Budget Survey (AHBS). The new survey is an instrument from a "familyhood" of the Living Standards Measurement Surveys developed by the World Bank to assess poverty in developing and transitional countries. In this section, we provide a brief description of the distinguished features of Azerbaijan's survey, since the Living Standards Measurement Surveys has already been described in detail elsewhere (Deaton, 1997, Grosh & Glewwe, 2000).

The AHBS is a cross-sectional annual survey collecting information about demographics, housing, education, health, economic activities, and consumption and expenditure of households. It employs three-stage probability sampling with preliminary stratification by regions and by urban and rural areas. As a rule, each quarter about 2,000 new households participate in the survey, meaning that the total sample contains about 8,000 households per year. Importantly for the analysis of income poverty and inequality, the survey contains a diary where daily income and consumption are recorded by participants. In our analysis, we use the data set of 2003, a micro file containing records of 33,731

individuals in 8,525 households. We use the weight variable contained in the micro-file to make the survey representative to the total population of Azerbaijan.

Overview of Programs

Currently, all social protection programs in Azerbaijan can be broadly classified as social assistance and social insurance. Under the term "social assistance" we include all social programs which are: (1) paid from the general revenue of the state to the population deemed to be poor, (2) included in the social assistance line item of the state budget, and (3) administered by the state social protection agencies. Social insurance, a Pay-As-You-Go scheme, is paid from mandatory contributions of employees and employers to provide protection from the loss of income as a result of old age, disability, death of bread earners, sickness, maternity and unemployment. However, this study focuses only on social assistance.

Table 2 reports household-level descriptive statistics about the social assistance programs as estimated from the AHBS. In total, all social assistance programs reach 11.47 percent of the total population and provide them with an average of 92,366 AZM¹ benefits. Among them, Children Benefits is the only income-tested social assistance program in Azerbaijan and the only program with an explicit poverty-reduction mandate. The Children Benefits provides cash income for families with children assumed to be poor. The program covers about 0.09 percent of households and consumes 1.16 percent of total social assistance expenditures. Procedures of eligibility determination for the Children Benefits consist of a categorical test to determine how many children are in an applicant's family and an income-test to determine the salary of the applicant. Should the results of categorical and income-tests prove that the family's income per capita for the previous quarter is less than the eligibility level of 16,500 AZM, the applicant is eligible for the benefit.

All the other social assistance programs in Azerbaijan are categorical, meaning that no income or consumption of claimants is assessed. Rather, eligibility for benefits is based on belonging to the designated categories assumed to be poor. Thus, Scholar-

Table 2

Household descriptive statistics for social assistance programs

<i>Programs</i>	<i>Program participation Rate (%)</i>	<i>Mean benefit per Recipient AZM</i>	<i>Program share in total social assistance expenditures (%)</i>
Total	11.4	92,366	100.00
Children benefits	0.09	136,537	1.16
Scholarships	2.30	17,562	3.38
Social Pensions	2.30	107,830	35.00
Karabakh benefits	0.04	103,167	0.46
Chernobyl benefits	0.04	83,394	0.31
Child disability	0.62	91,559	5.32
Other benefits	5.19	110,090	53.89

Sources: Authors' calculations based on AHBS (2003).

ships provide benefits to full-time students and redistributes 3.38 percent of total social assistance benefits. Social Pensions provide protection for the elderly who do not qualify for a social insurance pension because of the lack of contribution to the Pay-As-You-Go scheme. Social Pensions redistribute 35 percent of the total social assistance budget which makes this program the second largest program by expenditures after the Other Benefits. Scholarships and Social Pensions have a similar participation rate—2.3 percent of the households—and are the second and the third largest programs by coverage after the Other Benefits.

Karabakh and Chernobyl benefits are aimed at households with disabled members during the Karabakh conflict with Armenia (1988-present) and disabled from the Chernobyl nuclear accident in Ukraine in 1986. These programs have the same participation rate: 0.04 percent, and redistribute a similar amount of total social protection expenditures: 0.46 and 0.31 percent respectively. Child Disability provides benefits for households with disabled children by redistributing 5.32 percent of the social assistance budget to 0.62 percent of the households.

The Other Benefits is the largest program both by coverage and by expenditures among all social assistance programs: 5.1

percent of the households and 6.9 percent of total social protection expenditures. One category of the Other Benefits is the merit-based privileges for war and labor veterans, and citizens decorated with orders and medals. Another category is the occupational benefits for personnel of civil, security and military services, and some other government organizations. This category provides exemption from or discounts for rents, utility payments, electricity, telephone service, medicines, medical appliances, medical care and urban transportation as well as vouchers to spas and summer camps.

Poverty Measurement and Poverty Reduction Effectiveness

Quantification of poverty depends on the selection of standards which can substantially affect the results of poverty measurement. These standards include welfare indicators (income or consumption), equivalence scales, poverty lines and poverty indexes. In this section, we briefly describe the specific standards used in this study.

We choose to use consumption, not income, as the welfare indicator of poverty. As compared with consumption, income is underreported in the AHBS, which can affect the outcomes of computations (GoA, 2005). In addition, consumption is a better indicator of poverty than income for households which consume a significant amount of home-made products. Since there is no consensus regarding what equivalence scale is more appropriate for transitional countries, we choose to use a per capita equivalence scale. By using this scale, our study is also consistent with the previous poverty assessments made in Azerbaijan (GoA, 2004, 2005, World Bank, 2003b). Per capita consumption is estimated by dividing total consumption of a household by the number of people in the household.

We choose to use two poverty lines set up by State Statistics Committee of Azerbaijan. The official poverty line in Azerbaijan is computed as the cost of consumption of 2,200 calories and includes additional allowances for non-food goods and services of 30 percent of total costs. There is also an extreme poverty line that does not include the costs of the allowances and can be referred as the food poverty line. The official and food poverty

lines were set up for the year of 2003 as 178,850 and 124,137 AZM per capita per month accordingly (GoA, 2004). To measure poverty we select three indexes from Foster, Greer and Thorbecke's (1984) "family", namely, poverty rate, poverty gap and poverty severity. The poverty rate shows the percentage of people in the total population whose consumption is below the poverty lines. The poverty gap indicates the shortfall of the consumption of the poor from poverty lines as an average of all people in the population. The poverty severity measures inequality among the poor by giving more weight to the poorest of the poor.

As the primary purpose of social assistance transfers is to lift beneficiaries out of poverty, poverty reduction effectiveness is one of the major characteristics of a social assistance program. To quantify the effectiveness, the poverty rate, gap and severity are recomputed in the absence of social assistance benefits to estimate how the poverty indexes would be affected if no social assistance programs existed. Thereafter, poverty reduction effectiveness is computed in the following way (Sainsbury & Morissens, 2002):

$$PE = (P_{\text{prior}} - P_{\text{post}}) \times 100 / P_{\text{prior}}$$

Where PE is the poverty reduction effectiveness of social assistance in percentage, and P_{prior} is the poverty indexes before the receipt of social assistance benefits, and P_{post} is the poverty indexes after the receipt of social assistance benefits.

The general impression from the data is that poverty is widespread in Azerbaijan—44.6 percent live below the official poverty line and 9.64 live below the food poverty line. In comparison, poverty is not very deep as the poverty gap is relatively small—0.0882 and 0.0132 for the official and the food poverty lines respectively. Poverty severity is also relatively limited—0.0256 for the official poverty line and 0.0030 for the food poverty line. Taken together, these findings are important for our analysis by indicating that the majority of the poor are clustered just below the official and food poverty lines in relatively concentrated groups. The poverty indexes are, therefore, fairly unstable and can easily be changed. Consequently, the poverty status of the poor is highly sensitive to even a small variation in consumption including variation triggered by change in the amount of received social

transfers. In particular, it is important for the food poverty line, where the number of poor is small and the poverty line itself is set too low.

Table 3 presents the poverty reduction effectiveness of social assistance in Azerbaijan. As shown, only the Other Benefits and Social Pensions demonstrate relatively greater effectiveness by decreasing the poverty rate by 27.79 and 21.37 percent respectively. By contrast, Scholarships and Child Disability benefits have less satisfactory performance by decreasing poverty rate by 2.33 and 4.08 percent respectively. All other social assistance benefits have a relative effectiveness of less than 1 percent.

Looking from the perspective of poverty gap and severity reduction, a similar picture can be observed. The Other Benefits, Social Pensions and Child Disability have the most effect in reducing the poverty gap—69.23, 56.00 and 16.46 percent respectively. They also are most effective in reducing poverty severity—90.83, 81.37 and 37.50 percent correspondingly. All other social assistance benefits have negligible effectiveness in reducing both the poverty gap and severity.

Taken together, the findings suggest that social assistance programs do reduce poverty. However, poverty reduction effectiveness is inadequate—the number of the poor is still alarmingly high after the receipt of all social assistance benefits. The results also show that different programs have varying impacts on poverty. Among all of the analyzed programs, the Other Benefits have the best performance followed by Social Pensions and Child Disability, while other programs demonstrate minuscule effectiveness.

Inequality Measurement and Inequality Reduction Effectiveness

Combating poverty is an important but not the only goal of social assistance programs. The inequality reduction may also be considered as an important indicator of how effective social assistance is. It is also noteworthy that in contrast to social insurance benefits reflecting past earnings, social assistance can potentially play a more direct role in redistribution of wealth by channeling more benefits to the lower strata of the population regardless of

Table 3
Poverty reduction effectiveness of social assistance (%)

	Children Benefits		Scholarships		Social Pensions		Karabakh Benefits		Chernobyl Benefits		Child Disability		Other Benefits	
	OP	FP	OP	FP	OP	FP	OP	FP	OP	FP	OP	FP	OP	FP
Rate	0.45	0.62	0.13	2.33	3.67	21.37	0.02	0.10	0.00	0.41	0.76	4.08	4.41	27.79
Gap	0.56	3.65	1.34	0.75	3.82	56.00	0.34	2.22	0.23	1.49	3.29	16.46	25.44	69.23
Severity	2.29	21.05	1.92	6.25	37.86	81.37	1.16	11.76	0.39	3.23	8.24	37.50	53.96	90.83

Notes: OP and FP mean official and food poverty respectively and are explained in the text.

Poverty indexes after transfers which are shown in Table 2 provide the baseline for these computations. Data are rounded up.

Source: Authors' calculations based on AHBS (2003).

the work history or amount of previous contributions made by the poor.

To measure inequality this study chooses to use the Gini coefficient, one the most commonly used inequality measures. The higher the Gini coefficient, the higher the level of inequality. Using the Gini coefficient has advantages insofar as it satisfies three important principles: (1) anonymity—it does not take into account who the wealthy and poor are; (2) scale independence—it does not take into account the size of economy, wealth of the country and the size of population of the country; (3) transfer principle—if income is transferred from the wealthy to the poor, the Gini coefficient demonstrates more equal distribution. As a rule, the Gini coefficient is expressed in the percentage form as the Gini index that is equal to the Gini coefficient multiplied by 100. The disadvantage of using the Gini is that it is highly sensitive to selection of units of analysis (e.g. individuals or households), grouping (e.g. deciles or quintiles), and welfare indicators (e.g. income or consumption). As a result, the reported Gini may fluctuate greatly. For instance, for Azerbaijan in 2002, the United Nations' inequality database reported that Gini exceeded 50 percent, while the Azerbaijan government reports that the Gini is about 27 percent (GoA, 2004; UNU-WIDER, 2005). However, this study concentrates on measuring the Gini before and after social assistance transfers rather than on measuring the Gini per se. Thus, we avoid the impact of sensitivity to the results of computations.

Although it is more common to calculate the Gini of income, this study uses the coefficient computed on the base of consumption. This allows us to overcome underreporting of income in the data set and to provide consistency with poverty analysis. The units of analysis are households and the welfare indicator is per capita consumption.

The second column of Table 4 demonstrates the Gini index before receipt of social assistance benefits. As expected, our result for 2003, 21.35 percent, is different from the previously reported, but closer to the figure reported by the Azerbaijan government for 2002². After this, we recalculate the Gini index in the absence of social assistance benefits to measure how inequality would change without social assistance programs. Hence, the inequality

Table 4

Inequality reduction effectiveness of social assistance in Gini index (%)

<i>Programs</i>	<i>Gini before receipt of benefits</i>	<i>Gini after receipt of benefits</i>	<i>Inequality reduction effectiveness</i>
Total	21.805	21.359	2.045
Children benefits	21.372	21.359	0.061
Scholarships	21.363	21.359	0.019
Social Pensions	21.541	21.359	0.845
Karabakh benefits	21.358	21.359	-0.005
Chernobyl benefits	21.361	21.359	0.009
Child disability	21.374	21.359	0.070
Other benefits	21.590	21.359	1.070

Source: Authors' calculations based on AHBS (2003).

reduction effectiveness is computed as the following (Kopri & Palme, 1998):

$$IE = (G_{\text{prior}} - G_{\text{post}}) \times 100 / G_{\text{prior}}$$

Where IE is the inequality reduction effectiveness of social assistance in percentage, and G_{prior} is the Gini index before receipt of social assistance benefits, and G_{post} is the Gini index after receipt of social assistance benefits

The results of computation are presented in the third column of Table 4. In general, social assistance programs do decrease inequality. However, the magnitude of the impact is minuscule. The inequality reduction effectiveness of all social assistance programs taken together is about 2 percent. Two programs, namely, the Other Benefits and Social Pensions are the most successful in inequality reduction with an effectiveness of 1.070 and 0.845 percent respectively. All other programs also reduce inequality, but their effectiveness is almost negligible. The notable exception is Karabakh benefits which slightly increase inequality.

Allocation of Benefits

To investigate why the poverty and inequality reduction of social assistance is inadequate, we need to focus on the allocation

of social assistance benefits to different groups of the population. In this section, households are ranked by deciles based on their per capita consumption to assess take-up, allocation efficiency, and benefit generosity of social assistance programs. Although we analyze the allocation of benefits to the total population, we especially test the extent to which benefits affect the poor. As shown in preceding sections, about 9.6 percent of the total population of the country lives below the food poverty line which is almost equal to the poorest decile. Consequently, we assume that the bottom decile represents the most vulnerable (Braithwaite et al., 2000; Milanovich, 2000).

Take-up

Take-up of social assistance benefits can be analyzed from the perspectives of horizontal and vertical efficiency (Atkinson, 1995; Beckerman, 1979). Horizontal efficiency indicates inclusiveness of the program and is measured by the Error of Exclusion, an indicator showing how many poor are erroneously excluded from the participation in the programs. The Error of Exclusion is computed as the percentage of the poorest population not covered by social assistance to the total percentage of the poor:

$$E_e = D_{1n} / D_1$$

Where E_e is the Error of Exclusion, and D_{1n} is the number of the poor not receiving social assistance benefit in the first decile, and D_1 is the total population in the first decile.

On the contrary, vertical efficiency indicates to what extent coverage of social assistance programs is restricted to the poor and can be measured by the Error of Inclusion, an indicator showing what percentage of the non-poor are “mistakenly” covered by the programs. The Error of Inclusion is computed as the percentage of non-poor participants covered by social assistance to the total percentage of participants in the program:

$$E_i = (D_2 + D_3 + D_4 + \dots + D_{10}) / (D_1 + D_2 + D_3 + \dots + D_{10})$$

Where E_i is the Error of Inclusion in percentage, and D_1, \dots, D_{10} are the percentage of non-poor participants covered by social assistance, meaning the first, second, . . . and tenth deciles, respectively, and

the sum of D_1, \dots, D_{10} is the total percentage of participants in the program.

Table 5 exhibits the take-up of social assistance programs, the Error of Exclusion and Error of Inclusion. In general, the Error of Exclusion is very high. About 87 percent of the poor living in the first decile do not receive any support from current social assistance programs. On the other hand, the Error of Inclusion is considerably high. About 89 percent of households covered by social assistance are not the poor. The same picture can be observed for separate programs. Some programs, namely, Chernobyl and Children benefits do not cover the poorest households and have the highest errors of exclusion of the poor—100 percent both. Even the programs that attained the best performances such as the Other Benefits and Social Pensions, still allow a high Error of Exclusion of the poor—94.87 and 95.21 percent respectively. The general impression from these findings is that the existing social assistance programs are not pro-poor. The main problems in the take-up of social assistance programs are the exclusion of the poor and the inclusion of the non-poor.

Allocation efficiency

Having been deemed an important performance indicator, social assistance take-up fails to take into account the variation in the share of social assistance transfers received by households. For instance, even if the poorest and the wealthiest deciles have the same number of households covered by a program, the actual proportion of benefits received by those households can be different. Hence, the proportion of benefits collected by deciles must also be assessed to measure what share of total social assistance benefits reach the poor (Coady & Skoufias, 2004).

The results of the computations are presented in Table 6 and provide two interesting insights. First, overall, the allocation efficiency of social assistance is minuscule, only a small share of social assistance benefits reaches the most vulnerable. Households in the first decile receive only 12.6 percent of total social assistance benefits. Nevertheless, as the first column in Table 6 demonstrates, distribution of social assistance benefits is progressive with the amount of benefits steadily decreasing with the growth in the

Table 5
Take-up of social assistance by household per capita consumption by deciles

Deciles	Total Social Assistance	Social Pensions	Karabakh Benefits	Chernobyl Benefits	Children Benefits	Children Disability	Scholarships	Other Benefits
1	12.92	4.79	0.23	0.00	0.00	1.02	2.06	5.13
2	13.45	3.98	0.00	0.00	0.23	0.95	2.99	5.30
3	13.45	3.94	0.00	0.36	0.09	0.58	2.03	6.61
4	12.39	2.69	0.00	0.00	0.24	0.43	1.99	7.25
5	12.27	4.20	0.00	0.00	0.00	0.28	1.86	6.42
6	11.45	3.74	0.00	0.00	0.00	0.74	2.60	4.57
7	10.60	3.65	0.09	0.00	0.12	0.83	1.99	4.21
8	9.94	2.56	0.00	0.00	0.07	0.73	2.17	4.78
9	10.25	3.28	0.00	0.00	0.09	0.34	2.99	3.71
10	8.02	1.59	0.12	0.00	0.08	0.26	2.37	3.95
Error of Exclusion	87.08	95.21	99.77	100.00	100.00	98.98	97.94	94.87
Error of Inclusion	88.74	86.09	47.70	100.00	100.00	83.50	91.07	90.12

Note: Figures in the table indicate coverage by the programs. For instance, Social Pensions for Decile 1 is 4.79, meaning that 4.79 percent of all households in this decile received benefits from this program.

Errors of Exclusion and Inclusion are explained in the text.

Data are rounded up.

Source: Authors' calculations based on AHBS (2003).

Table 6
Allocation of social assistance benefits by household per capita consumption by deciles

Deciles	Total Social Assistance	Social Pensions	Karabakh Benefits	Chernobyl Benefits	Children Benefits	Children Disability	Scholarships	Other Benefits
1	12.60	12.85	50.69	0.00	0.00	14.54	8.51	12.58
2	11.21	10.75	0.00	0.00	18.45	12.75	13.69	11.17
3	12.02	10.52	0.00	100.00	7.13	9.32	8.31	13.26
4	11.87	7.40	0.00	0.00	22.71	6.25	8.37	15.48
5	11.37	12.64	0.00	0.00	0.00	4.14	9.60	11.78
6	9.59	11.07	0.00	0.00	0.00	14.80	11.34	8.32
7	9.19	10.64	20.66	0.00	11.07	12.11	7.83	7.98
8	9.41	9.32	0.00	0.00	32.49	17.26	7.78	8.43
9	7.29	10.52	0.00	0.00	2.14	5.08	13.36	5.19
10	5.45	4.30	28.65	0.00	6.02	3.75	11.22	5.79

Notes: Figures in the table indicate the percentage of total benefits redistributed by programs to households. For instance, Social Pensions for Decile 1 is 12.85, meaning that 12.85 percent of total benefits from this program are allocated to the households in this decile.

Data are rounded up.

Source: Authors' calculations based on AHBS (2003).

households' consumption. Likewise, the poorest decile receives almost twice as much transfer from various social assistance programs as the wealthiest decile. Second, the programs are very different in allocation efficiency. Karabakh Benefits achieve the highest efficiency by providing more than half of the total benefits for the poorest decile. Social Pensions and the Other Benefits exhibit to some extent progressive allocation of the benefits. By contrast, other social assistance programs do not have clear pattern of benefit allocation.

Benefit generosity

Benefit generosity shows the proportion of benefits in the total consumption of different groups of population. Assessing the benefit generosity permits us to estimate the importance of social assistance benefits for each decile of the population (Gilbert & Van Voorish, 2003).

The benefit generosity of social assistance programs is shown in Table 7. In general, benefit generosity is low for all analyzed social assistance programs inasmuch as benefits comprise only a small fraction of consumption for all deciles. However, in relative terms total social assistance benefits are marginally more important for the poor than the non-poor. In total, social assistance benefits comprise about 11.86 percent of total income of the poor households and 1.35 percent of the non-poor. Again, the performance of separate programs is divergent. The Other Benefits and Social Pensions are the most important programs for the poor. They provide the largest shares in consumption of the poor—6.39 and 4.24 percent respectively. On the other hand, other social assistance programs are less important to the poor, their shares in consumption in all the deciles are almost negligible.

Summary and Implications for the Future Reforms

This article focuses on the effectiveness of social assistance in Azerbaijan, a low-income country in an era of transition from the centrally-planned to a market economy. The findings of this paper demonstrate that social assistance has decreased poverty and inequality. Nevertheless, a significant number of people, 44.6 percent, are still poor. Furthermore, about 10 percent of the total population lives below the food poverty line. Therefore, the

Table 7
Benefit generosity of social assistance benefits by household per capita consumption by deciles

Deciles	Total Social Assistance	Social Pensions	Karabakh Benefits	Chernobyl Benefits	Children Benefits	Children Disability	Scholarships	Other Benefits
1	11.86	4.24	0.20	0.00	0.00	0.73	0.31	0.39
2	8.39	2.82	0.00	0.00	0.16	0.51	0.39	0.51
3	8.04	2.46	0.00	0.19	0.06	0.33	0.21	0.79
4	7.24	1.58	0.00	0.00	0.16	0.20	0.19	0.09
5	6.36	2.48	0.00	0.00	0.00	0.12	0.21	0.56
6	4.91	1.99	0.00	0.00	0.00	0.40	0.22	2.30
7	4.31	1.74	0.04	0.00	0.06	0.30	0.14	0.02
8	3.96	1.37	0.00	0.00	0.16	0.39	0.13	0.91
9	2.66	1.34	0.00	0.00	0.01	0.10	0.19	0.02
10	1.35	0.37	0.03	0.00	0.02	0.05	0.11	0.77

Notes: Figures in the table indicate the percentage of distributed benefits as the share of total consumption of households. For instance, Social Pensions for Decile 1 is 4.24, meaning that transfers from the program on average compose 4.24 percent of the total consumption of the poor households in this decile.

Data are rounded up.

Source: Authors' calculations based on AHBS (2003).

performance of current social assistance should be improved to tackle the challenges of poverty and inequality. But, first of all, the reasons for modest performance should be identified.

Empirical evidence presented in this paper shows that the unsatisfactory performance of social assistance programs can be attributed to four major factors: (1) the benefits transferred to the poor are too small to significantly decrease the existing poverty and inequality; (2) some programs do not have an explicit mandate to reduce poverty and inequality; (3) the programs officially aimed at poverty reduction often have minuscule ability to identify the most vulnerable; and (4) the existing network of many programs with almost negligible benefits may be costly and administratively demanding.

The first and the most important factor for the ineffectiveness is the lack of funds to finance social assistance programs. The benefits are too low to "correct" poverty. As outlined, the reason for the low level of benefits is the overall low government spending per capita and as a percentage of GDP, which is caused by a weak economy and the comparatively small size of the total GDP. However, even if more resources were to be allocated to the existing programs, without taking into consideration the three other factors of inefficiency, the outcomes would still be insufficient.

The second factor is that even these scarce resources are distributed inefficiently by allocating a significant share of funds to the programs with low poverty reduction performance. Current social assistance programs suffer from high Errors of Exclusion and Inclusion. Comparison between programs, however, should be made with care inasmuch as they have different objectives. Some programs evaluated in this study such as Karabakh and Chernobyl Benefits do not have the explicit objective to confining benefits to the poor. Nevertheless, measuring poverty and the inequality-reduction effectiveness of these programs seems necessary under the current circumstances. Widespread poverty, inequality and general economic insecurity associated with transition in Azerbaijan have elevated the importance of social programs aimed at reducing poverty. There is also significant pressure to increase the impact of social assistance on poverty and inequality. At the same time, budgetary pressure limits the gov-

ernment's ability to increase the amount of benefits. Confronted with tight fiscal constraint, the government may have no other option but to adopt a more narrow approach by allocating more resources to the programs targeting the poor.

Third, the problem is further aggravated by the large number of the poor. In such circumstances, priority should be given to the most vulnerable, perhaps those who live in extreme poverty—below and close to the food poverty line. To cover more of the extremely poor and to provide them with a larger share of benefits, the social administrators need to know who the extremely poor are. Assessing poverty status of household is extremely difficult because of the diffused nature of poverty during transition and a large size of the informal economy. Current social assistance programs are not able to identify the most vulnerable. As shown, neither income-test nor categorical assistance is sufficient to properly assess the poverty status of households.

However, international experience shows several approaches to administering social assistance programs when poverty status cannot be easily assessed. One approach is community targeting, identified as contracting out social assistance programs to a community that will identify recipients, deliver benefits, and monitor and evaluate program implementation based on locally-agreed notions of poverty, deprivation, need or capabilities (Conning & Kevane, 2002). The underlying premise of community targeting is that community members are in a better position to identify the most vulnerable among themselves than social assistance workers. The transitional countries have already had some experience with implementing community targeting schemes for poverty reduction. For example, Uzbekistan has implemented the "Mahalla" scheme since mid-1990s (Micklewright & Marnie, 2005). Under the scheme, each community is provided with a part of the country's total social assistance budget. A committee comprised of the most respected representatives of the community is entrusted to allocate the benefits to the households according to local knowledge about their needs.

Another approach is proxy-mean targeting, identification of the poor by easily observable characteristics such as education, gender, age, access to a plot of land and clean water, possession of cars, and size of apartments. These characteristics, called

"proxies", can be used to statistically predict the poverty status of a household (Abdul Naga, 2003; Bisongo & Chong, 2001). The households exhibiting the identified set of proxies are classified as the poor and receive social assistance benefits. A well-known example of a proxy-mean targeted program is the "Oportunidades" (formerly "Progressa") program in Mexico.

Fourth, after an appropriate method of allocating benefits is selected, it is useful to create a single poverty reduction benefit instead of continuing the existing hodgepodge of programs. Consolidating several benefits into one allows for decreasing administrative costs and increasing the amount of the benefit to the level required to lift beneficiaries out of poverty.

Finally, however efficient and effective social assistance might be, it is not a panacea for poverty during transition. Social assistance is only one element of a broader system of social protection that should be gradually developed in Azerbaijan. Other elements of the system such as pensions, unemployment insurance, maternity leave and sickness benefits should also be developed concurrently with the reforms in social assistance. In addition, social assistance is a fairly passive mechanism: it applies when a person or a household has already fallen into poverty. Hence, more pro-active strategies such as investments in education and health care, and access to inexpensive credit resources should also be used to achieve poverty reduction.

Notes

1. Manat is Azerbaijan's currency. According to Azerbaijan's Central Bank, USD 1 = Manat 4,911.11 in average for the year of 2003. (www.nba.az/eng/statistics/monetary_indicators/offical_2003.shtml)
2. Neither the UN nor the Azerbaijan government fully disclose the details of their respective Gini calculations.

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